

REMARKS

In the Office Action, the Examiner continues to reject claims 1-7 and 9-17. More specifically, the Examiner has rejected claims 1-7, 9-14, and 16 under 35 USC §101, and has rejected claims 15 and 17 under 35 USC §103. These objections and rejections are fully traversed below. In addition, Applicant has amended the claims to correct various typographical errors.

Applicant acknowledges that 18-43 have been withdrawn from consideration due to the previous restriction requirement. New claims 44-59 have been added. Claims 21-23 and 28-40 have been cancelled in order to reduce claims fees. Claims 1-7, 9-17, and 44-59 are now pending.

Reconsideration of the application is respectfully requested based on the following remarks.

REJECTION OF CLAIMS UNDER 35 USC §101

In the Office Action, the Examiner rejected claims 1-7, 9-14, and 16 under 35 U.S.C. 101 as being directed to non-statutory subject matter. Applicant respectfully traverses this assertion.

The Examiner asserts that the claims are merely trying to claim a “computer code” in the abstract, and therefore the claims fall within the “abstract idea” judicial exception. The Examiner further asserts that there is no practical application by physical transformation since the software does not manipulate any physical structure and since the structure of the machines in each of these claims does not change. In addition, the Examiner further argues that there is no practical application that produces a useful and tangible result since, when implemented in software, the claims never require that a computer execute the software.

Applicant respectfully asserts that the claims are directed to the communication between access points, which are physical devices. In fact, the Examiner has rejected claim 16, which is clearly directed to an access point comprising a processor and a memory. The

claimed steps are performed by physical devices. As a result, the claims are clearly not directed to an “abstract idea.” Furthermore, since data is transmitted between these physical devices, a physical structure (data) is manipulated. Since a physical device performs these steps, these claims are not directed specifically to software or a computer that performs these steps. Therefore, Applicant respectfully asserts that it is unnecessary to perform these steps by a computer in order to produce a useful and tangible result. Rather, the pending claims enable an access point to ascertain when it is appropriate to compose and send a registration request on behalf of a node. Since the claims are clearly directed to the communication of information between physical devices (access points), Applicant respectfully asserts that the claims are directed to statutory subject matter. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of the claims under 35 USC 101.

REJECTION OF CLAIMS UNDER 35 USC §103

In the Office Action, the Examiner rejected claims 15 and 17 under 35 U.S.C. 103(a) as being unpatentable over Heller et al, U.S. Publication No. 2002/0147837, (‘Heller’ hereinafter) in view of Zhang, U.S. Patent No. 6,810,259, (‘Zhang’ hereinafter).

Heller discloses proxy mobile node capability for Mobile IP. See title. Heller discloses receiving a link layer message from a mobile node. Mobile IP information is then obtained from a database based on the identity of the mobile node. This information includes an IP address for each of the MN, FA and HA plus other information needed to perform the mobile IP registration. A registration request is then sent on behalf of the mobile node. See paragraph [0018].

In the recent rejection, the Examiner asserts that Heller provides the teaching of the claimed “access point information.” The access point information as claimed identifies an access point subnet and a gateway. The Examiner asserts that “a base station, i.e. an access point, receives a link layer message, i.e., a data packet, and uses the identity of the MN, i.e. access point subnet (since the address of the MN includes the subnet address of its home access point subnet...to determine whether to send a registration request on behalf of the node to the node’s HA and where the HA is a gateway, as shown in Fig. 3).“

While it may be possible to ascertain the home access point subnet from the address of the MN, it is important to note that a data packet received from a node does not identify a Home Agent. The Examiner admits that Heller fails to specify how the database obtains the

stored information. As a result, Heller fails to disclose or suggest receiving information from another access point. The examiner seeks to cure the deficiencies of Heller with Zhang and Rai.

Zhang discloses a location update protocol. See title. More particularly, cache entries are transferred or copied from one base station to another base station. See col. 5, lines 13-21. The cache entries include subscriber profile information. See Abstract. Each profile includes information necessary for executing call-processing operations associated with the subscriber. See col. 1, lines 31-41. However, location register information is not included in the subscriber profiles. See col. 1, lines 31-41. As a result, the cache entries that are copied do not include location information such as HLR or VLR information. Stated another way, the information that is transmitted is not associated with an access point. Rather, the cache entries including the subscriber profiles that are transmitted merely include information associated with subscribers (i.e., hosts). Accordingly, Zhang neither discloses nor suggests transmitting access point information identifying an access point subnet and a gateway among access points to notify the access points of those access points that are active (or no longer active).

In the Examiner's most recent communication, the Examiner asserts that Zhang provides teachings regarding a mechanism for updating information in databases in access points. The Examiner further asserts that Zhang transmits access point information among access points to "provide a location update protocol which reduces the load on the central server/database," citing col. 4, lines 46-53 of Zhang. However, it is important to note that the information that is transmitted in Zhang includes subscriber profile information (e.g., information associated with hosts), not information associated with access points. Moreover, col. 4, lines 46-53 merely state that this "reduces queries for subscriber profiles." Zhang in no manner discloses sending information regarding the base stations. Accordingly, Applicant respectfully submits that Zhang fails to disclose or suggest transmitting access point information regarding an access point to another access point.

The Examiner further cites col. 5, lines 22-33. However, this paragraph merely discusses a "mirror base station list" indicating at least one mirror of the base stations. More particularly, the base stations store a mirror subscriber profile list and mirror subscriber profiles. These copies of the cache entries are copied to the mirror base stations. See col. 5, lines 22-33. Again, this paragraph merely refers to transferring information associated with subscribers (hosts), not access points. As such, Zhang fails to disclose or suggest updating a

list of active access points.

Moreover, the Examiner asserts that “the exchange of information between the mirrored access points will presumably result in the first access point instructing the third access point to delete access point information associated with the second access point.” Applicant respectfully traverses this assertion. As set forth above, the information that is exchanged relates to subscribers, not access points. As such, Applicant was unable to find any suggestion in Zhang relating to the deletion of access point information associated with an access point that is no longer active. Moreover, Zhang fails to disclose or suggest instructing an access point to delete access point information associated with another access point that is no longer active.

The use of IP as a transport mechanism does not necessitate that the list will include the IP address for each of the active access points. In fact, nowhere in Zhang is there a suggestion that the subscriber profiles include information associated with the base stations.

The cited references, separately or in combination, fail to disclose or suggest “storing the access point information such that a list of active access points is updated to include the access point information, the list of active access points including access point information associated with one or more active access points.” Similarly, the cited references, separately or in combination, fail to disclose or suggest “sending the access point information to a third access point that supports Mobile IP to notify the third access point that the second access point is an active access point.” Moreover, none of the cited references disclose or suggest the advantages of the claimed invention, which is to enable access points to be continually updated regarding those access points that are active (e.g., online).

It is also important to note that the combination of the cited references would merely result in an access point that includes a database that includes information based upon the identity of a Mobile Node, as disclosed in Heller. Similarly, Zhang discloses transmitting subscriber profile information, which would similarly be based upon the identity of a subscriber. The combination of the cited references would fail to result in the transmission of information related to the state of access points (e.g., whether the access points are active) independent of any nodes or subscribers.

For example, although the combination of the cited references enables information associated with subscribers/mobile nodes to be transmitted, this information will not necessarily indicate those access points that are active (e.g., online). For example, an access point that has just powered up will be considered active, but may not yet have acted as a

proxy node to register any nodes with a Home Agent. As a result, the access point will not be in possession of information associated with any “subscribers” (as referred to in Zhang) or “mobile nodes” (as referred to in Heller). Thus, such an access point will not transmit information that is associated with “subscribers” as disclosed in Zhang or information that is associated with “mobile nodes” as disclosed in Heller. Since other access points would not receive any information from this access point, other access points would be unaware that this access point is active. As such, the combination of the cited references would fail to operate as claimed. Accordingly, Applicant respectfully submits that the pending claims are patentable over the cited references.

In view of the above, Applicants respectfully submit that the independent claims are patentable over the cited art. The dependent claims depend from one of the independent claims and are therefore patentable for at least the same reasons. However, the dependent claims recite additional limitations that further distinguish them from the cited references. The additional limitations recited in the independent claims or the dependent claims are not further discussed, as the above discussed limitations are clearly sufficient to distinguish the claimed invention from the cited references. Thus, it is respectfully requested that the Examiner withdraw the rejection of the claims under 35 USC §103(a). Accordingly, Applicant respectfully submits that the pending claims are patentable over the cited art.

SUMMARY

An early Notice of Allowance is earnestly solicited. If there are any issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

Applicants hereby petition for an extension of time which may be required to maintain the pendency of this case, and any required fee for such extension or any further fee required in connection with the filing of this Amendment is to be charged to Deposit Account No. 50-0388 (Order No. CISC263).

Respectfully submitted,
BEYER WEAVER LLP

/Elise R. Heilbrunn/
Elise R. Heilbrunn
Reg. No. 42,649

PO Box 70250
Oakland, CA 94612-0250
(510) 663-1100